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105S7

Electronic User's Manual

Safety and Troubleshooting Information

Safety precautions and maintenance

WARNING: Use of controls, adjustments, or procedures other than those specified in this documentation may result in exposure to shock, electrical hazards, and/or mechanical hazards.

Read and follow these instructions when connecting and using your computer monitor:

- Disconnect the monitor from the power supply if the monitor is not to be used for an extended period of time.
- Do not attempt to remove the back cover, as you will be exposed to a shock hazard. The back cover should only be removed by qualified service personnel.
- Do not place objects on top of the monitor cabinet, objects could fall into vents or cover them and prevent proper cooling of the monitor's electronic devices.
- To avoid the risk of shock or permanent damage to the set, do not expose the monitor to rain or excessive moisture.
- Do not use alcohol or ammonia-based liquid to clean the monitor. If necessary, clean with a slightly damp cloth. Disconnect the monitor from the power supply before cleaning.
- When positioning the monitor, make sure the power plug and outlet are easily accessible.

Consult a service technician if the monitor does not operate normally when operating instructions of this manual are followed.

RETURN TO TOP OF THE PAGE

Troubleshooting

Safety Precautions and Maintenance • Troubleshooting • Regulatory Information • Other Related Information

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Common Problems

Having trouble? Something not working? Before calling for help, try these suggestions.

Having this problem?	Check these items
No Picture (Power LED not lit)	• Make sure the Power cable is plugged into the power outlet and back of the monitor. • Power button on the front of your monitor should be in the ON position.
No Picture (Power LED is flashing orange)	• Make sure the computer is turned on. • Make sure the monitor cable is properly connected to your computer. • Check to see if the monitor cable has bent pins. • The Energy Saving feature may be activated
No Picture (Power LED is orange)	• Make sure the Brightness and Contrast controls are set correctly. • Make sure the monitor cable is properly connected to your computer. • Check to see if the monitor cable has bent pins.
Screen doesn't show when you turn on the monitor	• Make sure the monitor cable is properly connected to your computer. (Also refer to the Quick Start Guide). • Check to see if the monitor cable has bent pins. • Make sure the computer is turned on.

No color or intermittent color	• If you are using a non-VESA-DDC standard video card, turn the DDC1 / 2B feature Off.
Color appears blotchy	• The picture may need degaussing. • Remove any nearby magnetic objects. • Face the monitor toward the East for the best picture quality.
Missing one or more colors	• Check the Color Temperature. • Make sure the monitor cable is properly connected to your computer. • Check to see if the monitor cable has bent pins.
Dim Picture	• Adjust the Brightness and Contrast controls. • Check your video card and it's owner's manual instructions for it may be a non-VESA-DDC Standard card.
Picture is too large or too small.	• Adjust the Horizontal and/or Vertical Size.
Edges of the picture are not square.	• Adjust the geometry.
Picture has a double image.	• Eliminate the use of a video extension cable and/or video switch box. • Face the monitor toward the East for the best picture quality.
Picture is not sharp.	• heck to make sure Moire Function is switched off.
Unstable Picture	• Increase your refresh rate.
Problem with On Screen Display	• Refer to the instructions and troubleshooting information in that chapter.

For further assistance, refer to the Consumer Information Centers list to contact your local Philips distributor.

RETURN TO TOP OF THE PAGE

Regulatory Information

Federal Communications Commission (FCC) Notice (U.S. Only)

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Use only RF shielded cable that was supplied with the monitor when connecting this monitor to a computer device.

To prevent damage which may result in fire or shock hazard, do not expose this appliance to rain or excessive moisture.

THIS CLASS B DIGITAL APPARATUS MEETS ALL REQUIREMENTS OF THE CANADIAN INTERFERENCE-CAUSING EQUIPMENT REGULATIONS.

RETURN TO TOP OF THE PAGE

Commission Federale de la Communication (FCC Declaration)

Cet équipement a été testé et déclaré conforme auxlimites des appareils numériques de class B,aux termes de l'article 15 Des règles de la FCC. Ces limites sont conçues de façon à fourir une protection raisonnable contre les interférences nuisibles dans le cadre d'une installation résidentielle. CET appareil produit, utilise et peut émettre des hyperfréquences qui, si l'appareil n'est pas installé et utilisé selon les consignes données, peuvent causer des interférences nuisibles aux communications radio. Cependant, rien ne peut garantir l'absence d'interférences dans le cadre d'une installation particulière. Si cet appareil est la cause d'interférences nuisibles pour la réception des signaux de radio ou de télévision, ce qui peut être décelé en fermant l'équipement, puis en le remettant en fonction, l'utilisateur pourrait essayer de corriger la situation en prenant les mesures suivantes:

- Réorienter ou déplacer l'antenne de réception.
- Augmenter la distance entre l'équipement et le récepteur.
- Brancher l'équipement sur un autre circuit que celui utilisé par le récepteur.
- Demander l'aide du marchand ou d'un technicien chevronné en radio/télévision.

Toutes modifications n'ayant pas reçu l'approbation des services compétents en matière de conformité est susceptible d'interdire à l'utilisateur l'usage du présent équipement.

N'utiliser que des câbles RF armés pour les connections avec des ordinateurs ou périphériques.

CET APPAREIL NUMERIQUE DE LA CLASSE B RESPECTE TOUTES LES EXIGENCES DU REGLEMENT SUR LE MATERIEL BROUILLEUR DU CANADA.

RETURN TO TOP OF THE PAGE

BSMI Notice (Taiwan Only)

符合乙類資訊產品之標準

RETURN TO TOP OF THE PAGE

Other Related Information

Safety Precautions and Maintenance • Troubleshooting • Regulatory Information
•Information for Users in the U. S. • Information for Users Outside the U.S

Information for Users in the U. S.

For units set at 115 V :

Use a UL Listed Cord Set consisting of a minimum 18 AWG, Type SVT or SJT three conductor cord a maximum of 15-feet long and a parallel blade, grounding type attachment plug rated 15 A, 125 V.

For units set at 230 V:

Use a UL Listed Cord Set consisting of a minimum 18 AWG, Type SVT or SJT three conductor cord a maximum of 15-feet long and a tandem blade, grounding type attachment plug rated 15 A, 250 V.

Information for Users outside the U.S.

For units set at 230 V:

Use a Cord Set rated minimum 5 A, 250 V (for units set at 230V) or 10A, 125V (for units set at 115V). The Cord Set should have the appropriate safety approvals for the country in which the equipment will be installed.

RETURN TO TOP OF THE PAGE

About This Electronic User's Manual

About This Guide

This electronic user's guide is intended for anyone who uses the Philips Color Monitor. It describes the monitor's features, setup, operation and all other information, which is the same exact information described in our printed version.

The sections are as follows:

- Safety and Troubleshooting Information provides tips and solutions for common problems, and other related information you may need.
- About This Electronic User's Manual gives overview of what information are included as well as notation icon descriptions and other documentation you can refer to.
- Product Information gives an overview of the monitor's features and as well as the technical specifications for this monitor.
- Installing Your Monitor describes the initial setup process and gives an overview of how to use the monitor.
- On Screen Display provides information on adjusting the settings on your monitor.
- Customer Care and Warranty is a list of worldwide Philips consumer information centers along with the help desk phone numbers and information on the applicable warranty of your product..
- Glossary provides more information for technical terms.
- Download allows users to install the entire manual on their hard drive.
- Frequently Asked Questions provides answers to commonly asked questions.

RETURN TO TOP OF THE PAGE

Other Documents You May Need

In addition to this *Electronic User's Guide*, you may need to refer to the following documentation:

- *Philips Color Monitor Quick Start Guide* which summarizes the steps for setting up the monitor. This is included with this product.

RETURN TO TOP OF THE PAGE

Notational Descriptions

The following subsections describe notational conventions used in this document.

Notes, Cautions, and Warnings

Throughout this guide, blocks of text may be accompanied by an icon and printed in bold type or in italic type. These blocks are notes, cautions, and warnings, and they are used as follows:

NOTE: This icon indicates important information and tips that help you make better use of your computer system.

CAUTION: This icon indicates information that tells you how to avoid either potential damage to hardware or loss of data.

WARNING: This icon indicates the potential for bodily harm and tells you how to avoid the problem.

SMART HELP: This icon indicates helpful information when adjusting the On Screen Display of your monitor.

Some warnings may appear in alternate formats and may be unaccompanied by an icon. In such cases, the specific presentation of the warning is mandated by regulatory authority.

RETURN TO TOP OF THE PAGE

Product Information

Product Features

Model	Color
105S79	Gray
105S78	Black
105S7S	Siver/black

105S7

- 15-inch (13.8" VIS) color monitor with excellent front of screen performance for use with MACs and PCs
- Autoscan covers horizontal frequencies up to 54 kHz offering a maximum resolution of 1024 x 768 with flicker free display of 800 x 600 at up to 85 Hz
- Flat square High Contrast CRT with high-resolution 0.28 mm dot pitch .

RETURN TO TOP OF THE PAGE

Technical Specifications*

CRT

• Size and deflection	15 inch / 38 cm ; 90° deflection angle
• Dot pitch	0.28 mm

• Tube type	Shadow mask, flat square, high contrast
• Phosphor	P22
• Recommended display area	10.6" x 8.0" / 270 x 202 mm
• Maximum display area	11.1" x 8.4" / 284 x 214 mm

SCANNING

• Horizontal scanning	30 - 54 KHz
• Vertical scanning	50 - 120 Hz

VIDEO

• Video dot rate	85 MHz
• Input impedance	
- Video	75 ohm
- Sync	1k ohm
• Input signal levels	0.7 Vpp
• Sync input signal	TTL Sync
• Sync polarities	Positive and negative

WHITE COLOR TEMPERATURE

Chromaticity CIE coordinates:

• at 9300 K	x = 0.283 / y = 0.297
• at 6500 K	x = 0.313 / y = 0.329
• at 5500 K	x = 0.332 / y = 0.347

PRESET MODES

720 x 400 @ 70 Hz

640 x 480 @ 60 Hz

640 x 480 @ 75 Hz

800 x 600 @ 75 Hz

800 x 600 @ 85 Hz

1024 x 768 @ 60 Hz

** These information are subject to change without notice.*

RETURN TO TOP OF THE PAGE

Automatic Power Saving

If you have VESA's DPMS compliance display card or software installed in your PC, the monitor can automatically reduce its power consumption when not in use. And if an input from a keyboard, mouse or other input device is detected, the monitor will automatically "wake up". The following table shows the power consumption and signaling of this automatic power saving features:

Power Management Definition						
VESA's Mode	Video	H-sync	V-sync	Power Used	Power Saving (%)	LED color
ON	Active	Yes	Yes	Typical 62W	0 %	Green
OFF	Blanked	No	No	<5W	92%	Flashing orange

RETURN TO TOP OF THE PAGE

Physical Specifications

• Dimensions	14.0" x 14.2" x 14.7" / 357 x 362 x 373 mm (including base) 14.0" x 11.8" x 14.7" / 357 x 300 x 373 mm (excluding base)
• Weight	14.8kg
• Power supply	100 - 240 VAC, 60-50Hz (Please refer to rating label)
• Temperature (operating)	0° to 40°C / 32° to 104°F
• Temperature (storage)	-25° to +65°C / -13° to +149°F
• Relative humidity(storage)	5% to 95%

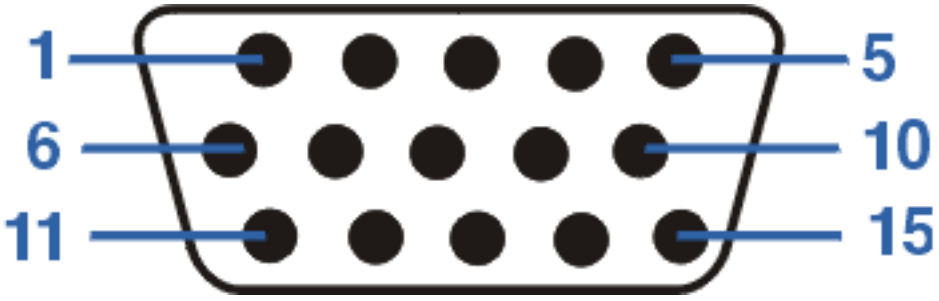
** Resolution 800 x 600, standard size, contrast max., brightness 50%, 9300°, full white pattern.*

** These information are subject to change without notice.*

RETURN TO TOP OF THE PAGE

Pin Assignment

The 15-pin D-sub connector (male) of the signal cable (IBM systems):



Pin No.	Assignment		Pin No.	Assignment
1	Red video input		9	NC
2	Green video input		10	Ground
3	Blue video input		11	Ground

4	Ground		12	Serial data line(SDA)
5	Ground		13	H. Sync / H+V
6	Red video ground		14	V. Sync (VCLK for DDC)
7	Green video ground		15	Data clock line (SCL)
8	Blue video ground			

RETURN TO TOP OF THE PAGE

Views

Follow the links to see various views of the monitor and its components.

Front View

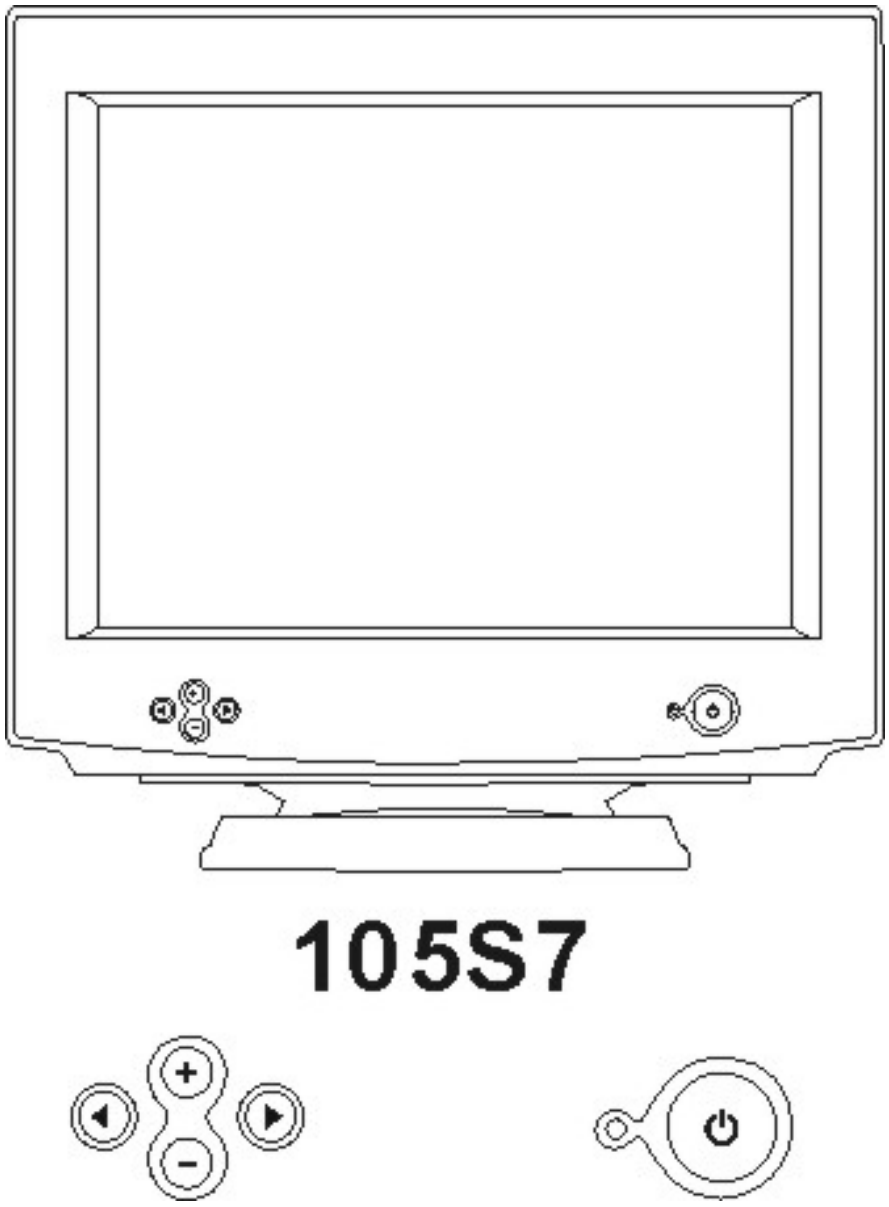
Rear View

RETURN TO TOP OF THE PAGE

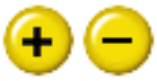
Installing your Monitor

Front View • Rear View • Base installation

Front View



To switch monitor's power power ON and OFF.

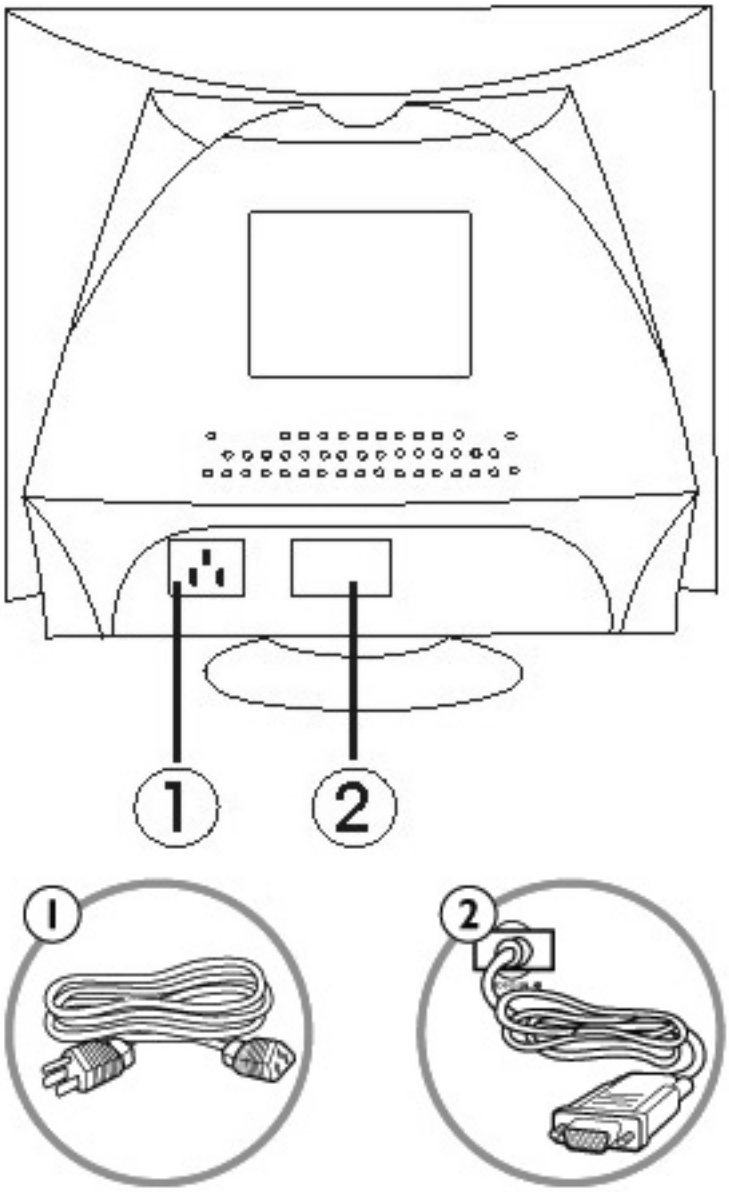


To adjust the OSD items.

To select the OSD items.

RETURN TO TOP OF THE PAGE

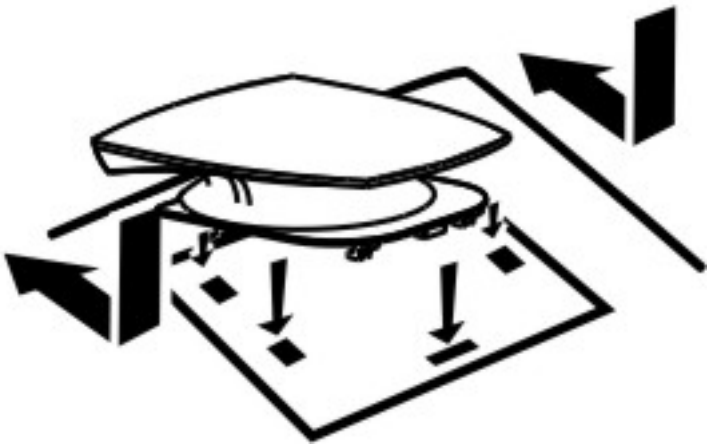
Rear View



1. Power in - attach power cable here.
2. Video In - this is a cable which is already attached to your monitor. Connect the other end of the cable to your PC.

RETURN TO TOP OF THE PAGE

Base installation



1. To INSTALL

- Slide in and click into place.

2. To UN-INSTALL

- Presses down tab and slide out.

RETURN TO TOP OF THE PAGE

The OSD Controls

The OSD Controls : Picture • Geometry • Degaussing • Color Management •Language • Other • Exit

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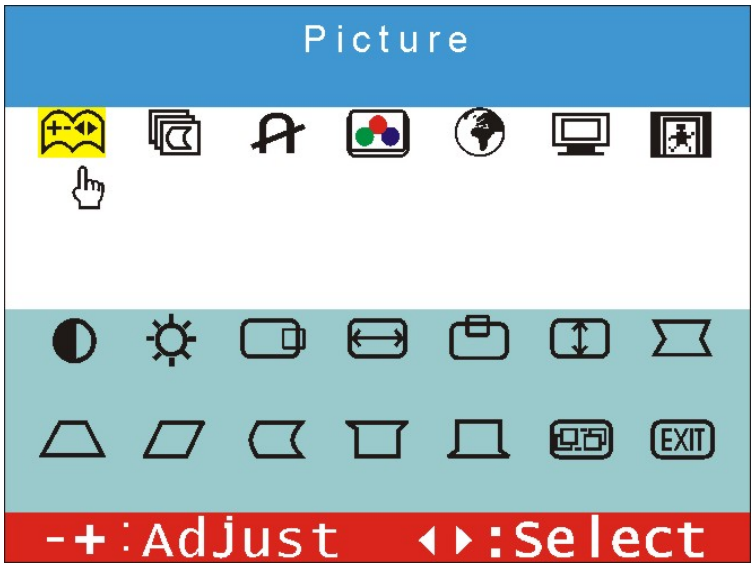
Picture

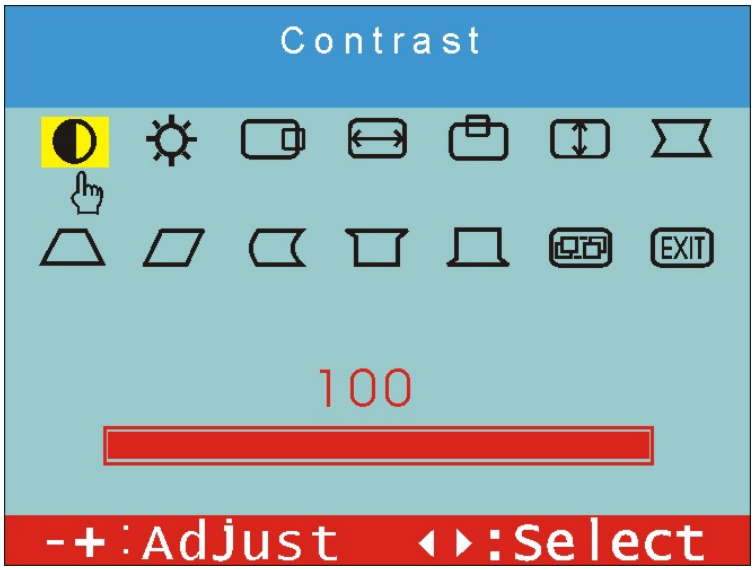
If necessary, please follow such steps to take •Picture•.

1•Press any one of . . . buttons. The •Picture• screen is displayed and highlighted.



2•Press the button or button and the adjustment items of the •Picture• are displayed on the screen.

3•Press the button or the button to select the desired item that will be highlighted. Press the button or the button to take the specific adjustment for the selected item.



Contrast	Brightness	H- Position	H-Size	V-Position	V-Size	Pincushion
Trapezoid	Parallel	Bow	Top Corner	Bottom Corner	Recall	Exit

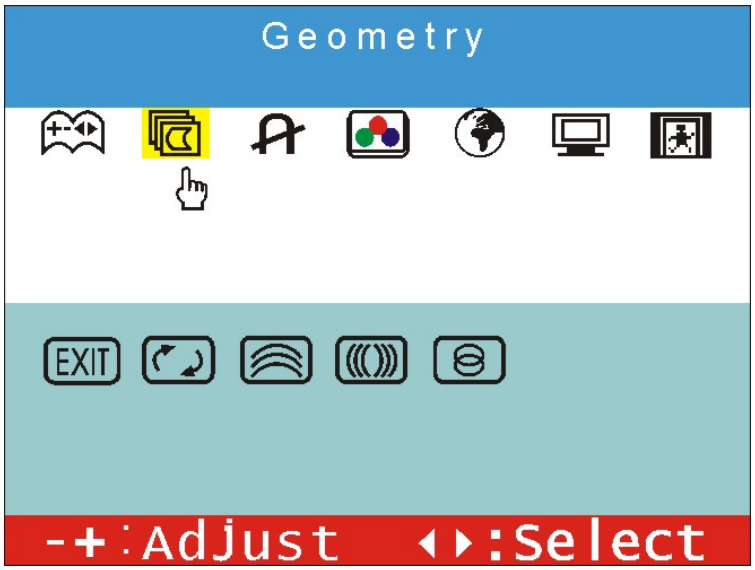
4•If desired values are reached, stop pressing the ⊕ button or the ⊖ button. Press the ◀ button or the ▶ button to select EXIT and press the ⊕ button or the ⊖ button to return to the •Picture• that will be highlighted. Or, stop pressing any button, and the OSD window will disappear 12 seconds later. New settings are stored.

RETURN TO TOP OF THE PAGE

Geometry

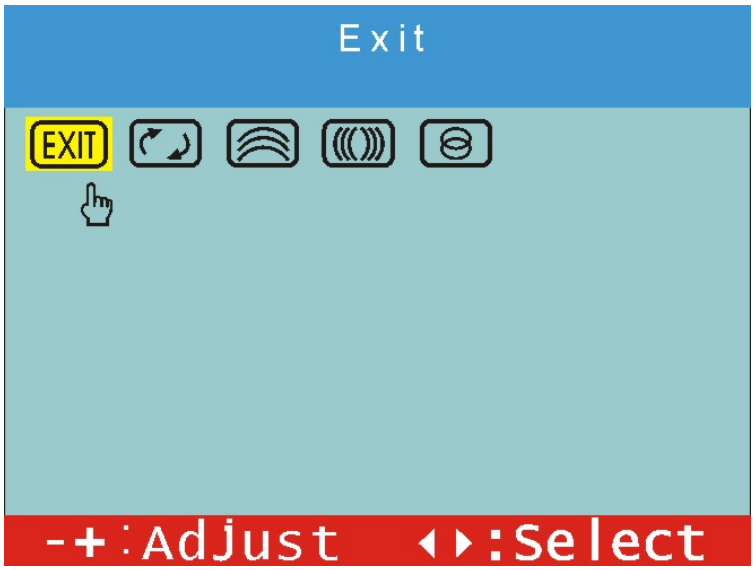
If necessary, please follow such steps to take geometry adjustment.

1. Press any one of • • • buttons and the OSD main image is displayed.Press the button or the button to select •Geometry• that will be highlighted.



2. Press the button or the button and the adjustment items of the •Geometry• are displayed on the screen.

3. Press the button button or the button button to select the desired item that will be highlighted. Press the button or the button button to take specific adjustment for the selected item.



EXIT				
Exit	Rotation	V-Moire	H-Moire	V-Focus

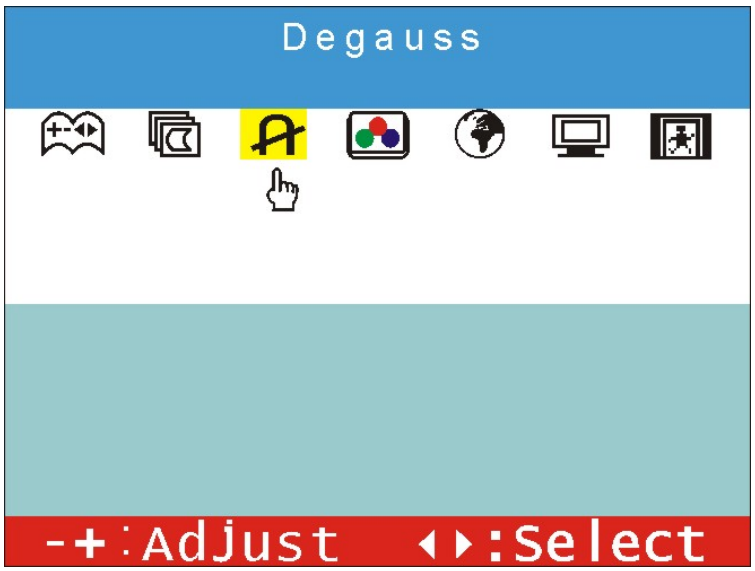
4. If desired values are reached, stop Pressing the button or the button. Press the button or the button to select EXIT and press the button or the button to return to •Geometry• screen that will be highlighted. Or, stop pressing any button, and the OSD window will disappear 12 seconds later. New settings are stored.

RETURN TO TOP OF THE PAGE

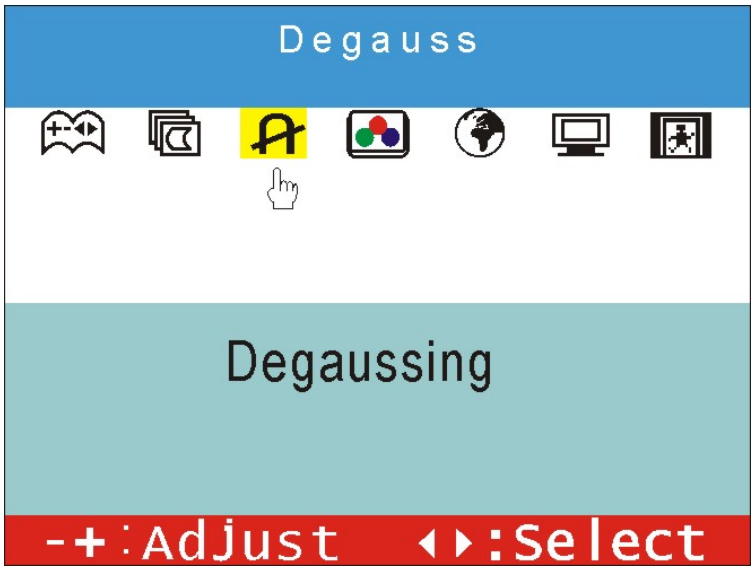
Degaussing

If necessary, please follow such steps to take •Degaussing•.

1. Press any one of •.•.•.• buttons and the OSD main image is displayed. Press the button or the button to select •Degaussing• that will be highlighted.



2.Press the button or the button. The monitor buzzes and the degaussing begins. The image may jiggle slightly in the process of degaussing and the OSD window displays •Degaussing•.



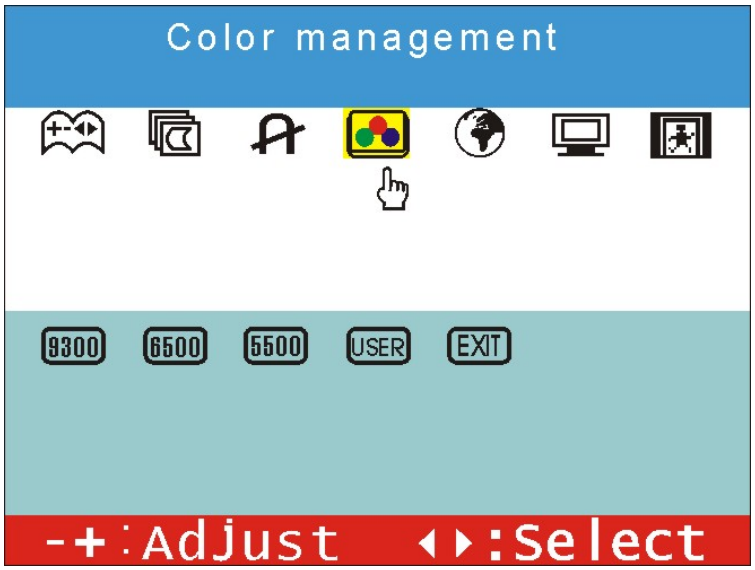
3.When the image does not jiggle, the degaussing is finished and the Degaussing item is highlighted. Press the ◀ button or the ▶ button to select other desired items. Or, select and presss the + button or the − button, and the OSD window will disappear.

RETURN TO TOP OF THE PAGE

Color Management

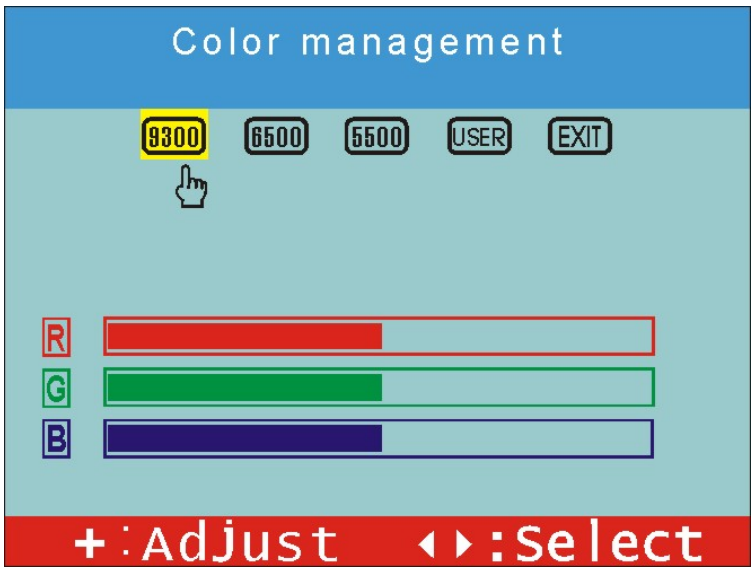
The monitor has three preset optional items: •9300K•, •6500K• and •5500K•. When you select one, the monitor will make adjustment automatically. Besides, the monitor still has another option-- •User• item. You may use it to adjust the color of the image to your favorite values.

1. Press any one of ◀ • ▶ • + • − buttons and the OSD main image is displayed. Press the ◀ button or the ▶ button to select •Color Management• that will be highlighted.



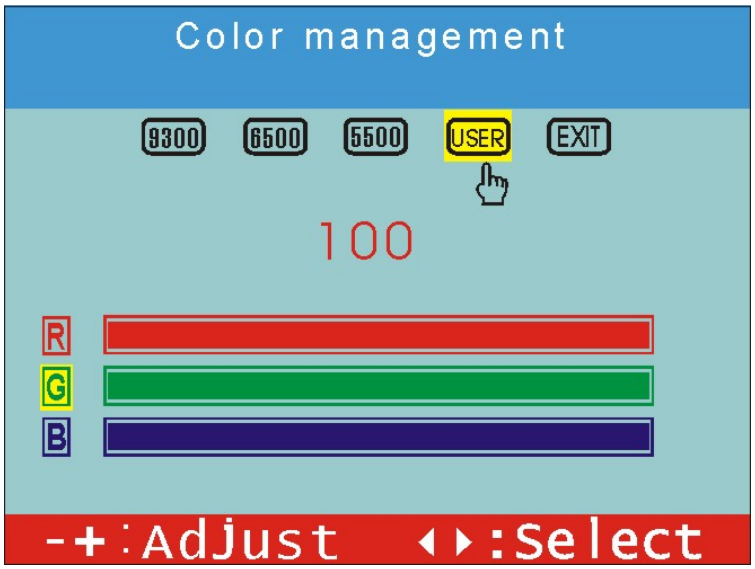
2.Press the button or the button and the adjustment items of the •Color Management• are displayed on the screen.

3.Press the button or the button to select the desired item that will be highlighted.



4.Press the button or the button to select 9300K, 6500K or 5500K. Press the button or the button, the •9300K•, •6500K• and •5500K• will be highlighted and red. Stop pressing any button, which makes the OSD window disappear 12 seconds later, or shut down and restart the monitor, and new settings are stored.

5.1 If the User item is highlighted, press the button or the button to display •User• screen. Press the button or the button to highlight the Red. Then, press the button or the button to adjust the •Red•.



5.2 After the•Red• adjustment is finished, press the button or the button to highlight the •Green•. Then, Press the button or the button to adjust the Green.

5.3 After the •Green• adjustment is finished, press the button or the button to highlight the •Blue•. Then, press the button or the button to adjust the •Blue•.

5.4 After all adjustments are finished, Press the button or the button to select EXIT and press the button or the button to return to •Color Management• . Here, •Color Management• is highlighted. Or, stop pressing any button, and the OSD window will disappear 12 seconds later. New settings are stored.

RETURN TO TOP OF THE PAGE

Language

OSD show all settings in one of six languages. The preset language is determined according to sales area. You may choose any one language among: English, German, French, Spanish, Japanese and China.

1.Press any one of . . . buttons and the OSD main image is displayed. Press the button or the button to select •Language• that will be highlighted.

2.Press the button or the button and the adjustment items of the Language are displayed on the screen.

3.Press the button or the button to select the desired OSD language that will be highlighted. Press the button or the button to select the language and return to the •Language• that will be highlighted. Or, stop pressing any button, the OSD window will disappear 12 seconds later. New settings are stored.

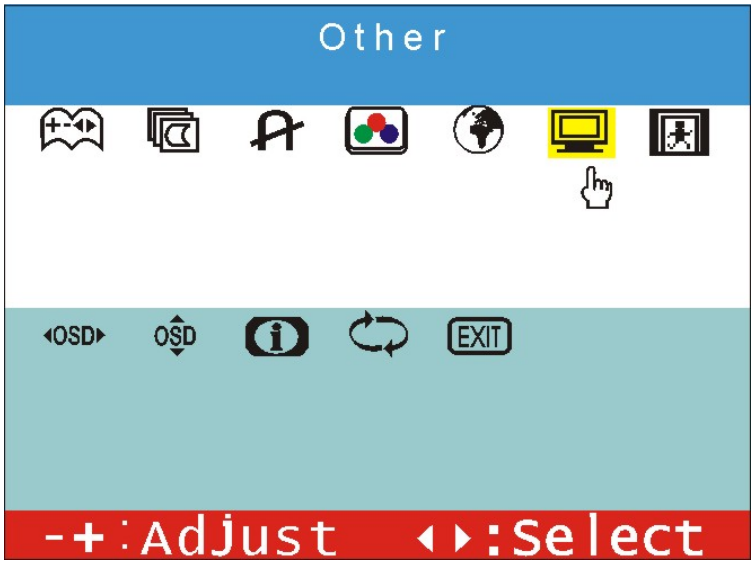
ENGLISH	DEUTSCH	FRANCAISE	ESPANOL	JAPANNESE	CHINA

RETURN TO TOP OF THE PAGE

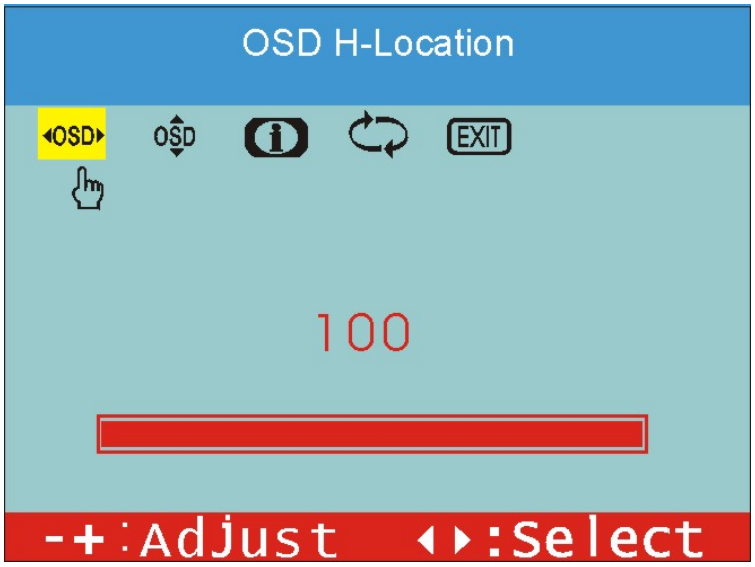
Other

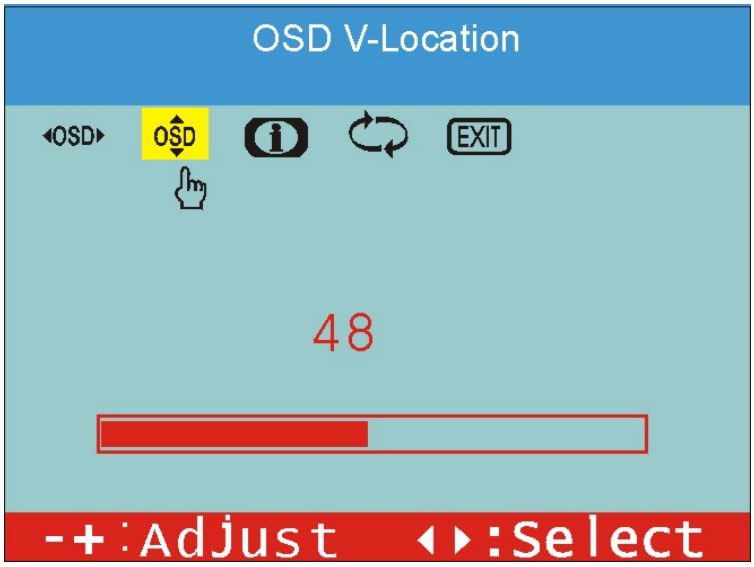
Others can help you to select •OSD H-Location•,•OSD V-Location•, •Message•or•Smart Settings•.

1.Press any one of ◀.▶.⊕.⊖ buttons and the OSD main image is displayed. Press the ◀ button or the ▶ button to select •Other• that will be highlighted. Press the ⊕ button or the ⊖ button to select it .

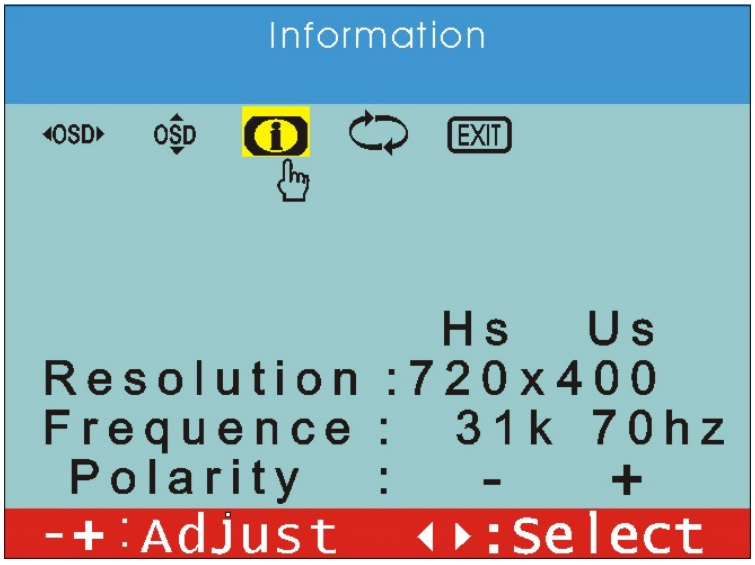


2.Press the ◀ button or the ▶ button to select •OSD H-Location•or•OSD V-Location•that will be highlighted. Press the ⊕ button or the ⊖ button to adjust OSD H-Location•or•OSD V-Location•.





3.After OSD Location adjustments are finished, press the button or the button to select •Information•. The monitor will display current resolution, horizontal frequency, vertical frequency and polarity.



4.Press the button or the button to select•Smart Setting•. Press the button or the button to preset time. Thus, the monitor will show “Take break” screen to remind the user to have a rest every the preset time.

5. After all adjustments are finished, Press the button or the button to select EXIT and press the button or the button to return to •Other• that will be highlighted. Or, stop pressing any button, and the OSD window will disappear 12 seconds later. New settings are stored.

RETURN TO TOP OF THE PAGE

Exit

After all adjustments are finished, return to the OSD main control image. Press the button or the button to select and Press the button or the button. Then the OSD window will disappear. Or, stop pressing any button, and the OSD window will disappear 12 seconds later. New settings are stored.

RETURN TO TOP OF THE PAGE

Customer Care & Warranty

PLEASE SELECT YOUR COUNTRY/AREA TO READ THE WARRANTY COVERED:

PACIFIC: Australia • New Zealand

ASIA: Bangladesh • China • Hong Kong • India • Indonesia • Japan • Korea • Malaysia • Pakistan • Philippines • Singapore • Taiwan • Thailand

AFRICA: Morocco • South Africa

MIDDLE EAST: Dubai • Egypt

Your International Guarantee

Dear Customer,

Thank you for purchasing this Philips product which has been designed and manufactured to the highest quality standards.

If, unfortunately, something should go wrong with this product Philips guarantees free of charge labor and replacement parts irrespective of the country where it is repaired during a period of 12 months from date of purchase. This international Philips guarantee complements the existing national guarantee obligations to you of dealers and Philips in the country of purchase and does not affect your statutory rights as a customer.

The Philips guarantee applies provided the product is handled properly for its intended use, in accordance with its operating instructions and upon presentation of the original invoice or cash receipt, indicating the date of purchase, dealer's name and model and production number of the product.

The Philips guarantee may not apply if:

- the documents have been altered in any way or made illegible;
- the model or production number on the product has been altered, deleted, removed or made illegible;
- repairs or product modifications and alterations have been executed by unauthorized service organizations or persons;
- damage is caused by accidents including but not limited to lightning, water or fire, misuse or neglect.

Please note that the product is not defective under this guarantee in the case where modifications become necessary in order for the product to comply with local or national technical standards which apply in countries for which the product was not originally designed and/or manufactured. Therefore always check whether a product can be used in a specific country.

In case your Philips product is not working correctly or is defective, please contact your Philips dealer. In the event you require service whilst in another country a dealer address can be given to you by the Philips Consumer Help Desk in that country, the telephone and fax number of which can be found in the relevant part of this booklet.

In order to avoid unnecessary inconvenience, we advise you to read the operating instructions carefully before contacting your dealer. If you have questions which your dealer cannot answer or any related question please contact the Philips Consumer Information Centers or via:

Website: *http://www.philips.com*

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Eastern Europe

CZECH REPUBLIC

Xpectrum
Lužná 591/4
CZ - 160 00 Praha 6
Tel: 800 100 697
Email:info@xpectrum.cz
www.xpectrum.cz

HUNGARY

Serware Szerviz
Vizimolnár u. 2-4
HU - 1031 Budapest
Tel: +36 1 2426331
Email: inbox@serware.hu
www.serware.hu

SLOVAKIA

Datalan Servisne Stredisko
Puchovska 8
SK - 831 06 Bratislava
Tel: +421 2 49207155
Email: servis@datalan.sk

SLOVENIA

PC HAND
Brezovce 10
SI - 1236 Trzin
Tel: +386 1 530 08 24
Email: servis@pchand.si

POLAND

Zolter
ul.Zytnia 1
PL - 05-500 Piaseczno
Tel:+48 22 7501766
Email: servmonitor@zolter.com.pl
www.zolter.com.pl

RUSSIA

Tel: +7 095 961-1111
Tel: 8-800-200-0880
Web-site: www.philips.ru

TURKEY

Türk Philips Ticaret A.S.
Yukari Dudullu Org.San.Bolgesi
2.Cadde No:22
34776-Umraniye/Istanbul
Tel: (0800)-261 33 02

Latin America

ANTILLES

Philips Antillana N.V.Kaminda A.J.E. Kusters 4
Zeelandia, P.O. box 3523-3051
Willemstad, Curacao
Phone: (09)-4612799
Fax : (09)-4612772

ARGENTINA

Vedia 3892 Capital Federal
CP:1430 Buenos Aires
Phone: (011)-4544 2047
Fax: (011)-4544 2928

BRASIL

Philips da Amazonia Ind. Elet.Ltda.
Av.Luis Carlos Berrini,
1400-Sao Paulo-SP
Phone: 0800-7010-203

CHILE

Philips Chilena S.A.
Avenida Santa Maria 0760
P.O. box 2687Santiago de Chile
Phone: (02)-730 2000
Fax : (02)-777 6730

COLOMBIA

Industrias Philips de Colombia
S.A.-Division de Servicio
CARRERA 15 Nr. 104-33
Bogota, Colombia
Phone: (01)-8000-111001 (toll free)
Fax : (01)-619-4300/619-4104

MEXICO

Consumer Information Centre
Norte 45 No.669
Col. Industrial Vallejo
C.P.02300, -Mexico, D.F.
Phone: (05)-3687788 / 9180050462
Fax : (05)-7284272

PARAGUAY

Philips del Paraguay S.A.
Avenida Artigas 1513
Casilla de Correos 605
Asuncion
Phone: (021)-211666
Fax : (021)-213007

PERU

Philips Peruana S.A.
Customer Desk
Comandante Espinar 719
Casilla 1841
Limab18
Phone: (01)-2136200
Fax : (01)-2136276

URUGUAY

Ind.Philips del Uruguay S.A.
Lius Alberto de Herrera 1248-P:10
Customer Help Desk 11300 Montevideo
Phone: (02)-6281111
Fax : (02)-6287777

VENEZUELA

Industrias Venezolanas Philips S.A.
Apartado Postal 1167
Caracas 1010-A
Phone: (02) 2377575
Fax : (02) 2376420

Canada

CANADA

Philips Electronics Ltd.
281 Hillmount Road Markham Ontario,
L6C 2S3
Phone: 800- 479-6696
Fax:905-887-3974

Pacific

AUSTRALIA

Philips Consumer Service.
Customer Information Centre.
3 Figtree Drive
Homebush Bay NSW 2140
Phone: CIC:1300 363 391, PCE Service:1 300-361 392
Fax:+61 2 9947 0063

NEW ZEALAND

Philips New Zealand Ltd.
Consumer Help Desk
2 Wagener Place, Mt.Albert
P.O. box 1041
Auckland
Phone: 0800 477 999 (Toll Free)
Fax:0800 288 588

Asia

BANGLADESH

Philips Service Centre
100 Kazi Nazrul Islam
Avenue Kawran Bazar C/A
Dhaka-1215
Phone: (02)-812909
Fax : (02)-813062

CHINA

SHANHAI
No. 1102 wuding road, jing an district,
200040 Shanghai,
P.R. China
Phone: 800 820 5128 (Toll Free)
Fax:21-65610647

NANJING
No. 12-2 dong da ying bei, zhu jiang road,
210018 Nanjing,
P.R. China
Phone: 800 820 5128 (Toll Free)

Fax:21-65610647

HANGZHOU
No. 20 jiao gong road,
310012 Hangzhou,
P.R. China
Phone: 800 820 5128 (Toll Free)
Fax:21-65610647

BEIJING
No. 171-3 hai dian road, hai dian district,
100086 Beijing,
P.R. China
Phone: 800 820 5128 (Toll Free)
Fax:21-65610647

SHENYANG
No. 84-1 san hao street,
110003 Shenyang
P.R. China
Phone: 800 820 5128 (Toll Free)
Fax:21-65610647

XIAN
No. 6-9 yan ta road south part,
710061 Xian,
P.R. China
Phone: 800 820 5128 (Toll Free)
Fax:21-65610647

GUANGZHOU
No. 15-17 long kou dong road, tian he district,
510070 Guangzhou,
P.R. China
Phone: 800 820 5128 (Toll Free)
Fax:21-65610647

SHENZHEN
Room 603, electronic BLD, No. 30 Shen nan zhong road,
518031 Shenzhen,
P.R. China
Phone: 800 820 5128 (Toll Free)
Fax:21-65610647

CHANGSHA
Room 18, He yi computer city, chao yang road,
Changsha,
P.R. China
Phone: 800 820 5128 (Toll Free)
Fax:21-65610647

WUHAN
No. 60-66 gui yuan road, hong shan district,
430070 Wuhan,
P.R. China
Phone: 800 820 5128 (Toll Free)
Fax:21-65610647

CHENGDU
Chengdu Sience-technolege university service BLD, No. 24 nan yi duan of
Yi huan road,
410061 Chengdu,
P.R. China
Phone: 800 820 5128 (Toll Free)
Fax:21-65610647

HONG KONG

Philips Hong Kong Limited
Consumer Information Centre
16/F Hopewell Centre
17 Kennedy Road, WANCHAI
Phone: 2619-9663
Fax: 2481 5847

INDIA

BOMBAY
Philips India
Customer Relation Centre
Bandbox House
254-D Dr. A Besant Road, Worli
Bombay 400 025
Phone: (020)-712 2048 ext 2765
Fax:(020)-712 1558

CALCUTTA
Customer Relation Centre
7 justice Chandra Madhab Road
Calcutta 700 020
Phone: (020)-712 2048 ext 2765
Fax:(020)-712 1558

MADRAS
Customer Relation Centre
3, Haddows Road
Madras 600 006

Phone: (020)-712 2048 ext 2765
Fax:(020)-712 1558

NEW DELHI
Customer Relation Centre
68, Shivaji Marg
New Dehli 110 015
Phone: (020)-712 2048 ext 2765
Fax:(020)-712 1558

INDONESIA

Philips Group of Companies in Indonesia
Consumer Information Centre
Jl.Buncit Raya Kav. 99-100
12510 Jakarta
Phone: (021)-7940040/7984255 Ext 1612
Fax : (021)-7947511 / 7947539

JAPAN

Philips Consumer Electronics
1-11-9,Ebisuminami
Shibuya-Ku
Tokyo 150
Phone: (03)-3719-2235
Fax : (03)-3715-9992

KOREA

Philips Korea Ltd.
Philips House
C.P.O. box 3680
260-199, Itaewon-Dong.
Yongsan-Ku, Seoul 140-202
Phone: 080 600 6600 (Toll Free)
Fax:(02)709 1245

MALAYSIA

Philips Malaysia Sdn. Berhad
Service Dept.
No.51,sect.13 Jalan University.
46200 Petaling Jaya, Selagor.
P.O.box 12163
50768 Kuala Lumpur.
Phone: (03)-7950 5501/02
Fax:(03)-7954 8504

PAKISTAN

KARACHI
Philips Electrical Ind. of Pakistan
Consumer Information Centre
F-54, S.I.T.E, P.O.Box 7101
75730 KARACHI
Phone: (021)-773 1927
Fax:(021)-772 1167

Philips Consumer Service Centre
168-F, Adamjee Road
Rawalpindi Cantt
Phone: (021)-773 1927
Fax:(021)-772 1167

PHILIPPINES

Philips Electronics and Lighting Inc.
106 Valero St., Salcedo Village
Makati, Metro Manilla.
Phone: (02)-888 0572 , Domestic Toll Free:1-800-10-PHILIPS or 1-800-10-744 5477
Fax:(02)-888 0571

SINGAPORE

Philips Singapore Private Ltd.
Consumer Service Dept.
Lorong 1,Toa Payoh., P.O. box 340
Singapore 1231
Phone:6882 3999
Fax:6250 8037

TAIWAN

Philips Taiwan Ltd.
Consumer Information Centre
13F, No. 3-1 Yuan Qu St., Nan Gang Dist.,
Taipei, 115, Taiwan
Phone: 0800-231-099
Fax:(02)-3789 2641

THAILAND

Philips Electronics (Thailand) Ltd.
Philips Service Centre
209/2 Sanpavut Road,
Bangna, Bangkok 10260
Phone : (02)-652 8652
Fax:(02)-614 3531

Africa

MOROCCO

Philips Electronique Maroc
304,BD Mohamed V
Casablanca
Phone: (02)-302992
Fax : (02)-303446

SOUTH AFRICA

South African Philips.
S.V. Div. 195 Main R.D.
Martindale., Johannesburg
P.O.box 58088
Newville 2114
Phone: (011)-4715000
Fax : (011)-4715020

Middle East

DUBAI

Philips Middle East B.V.
Consumer Information Centre
P.O.Box 7785
DUBAI
Phone: (04)-3353666
Fax : (04)-3353999

EGYPT

Philips Egypt
Consumer Information Centre
10, Abdel Rahman El Rafei
Mohandessin - Cairo, P.O.Box 242
DOKKI
Phone: (02)-3313993
Fax : (02)-3492142

Frequently Asked Questions

1. What does the "Designed for Windows" logo signify?

The "Designed for Windows" logo means your Philips monitor fulfills the requirements and recommendations of the PC9x (97, 98, or 99) System Design Guide and passes stringent WHQL tests.

2. What models are Mac compatible?

All listed Philips monitors are Mac compatible. BUT, you may need an adapter to connect the monitor to your Mac system. Please contact your dealer/reseller for details.

3. What is TCO?

TCO is a Swedish abbreviation for the Swedish Confederation of Professional Employees.

4. What is MPR?

MPR is a Swedish abbreviation for the Swedish National Board of Measurement and Testing.

5. What are the differences between MPRII, TCO92, TCO95, TCO99 and TCO'03?

In the general hierarchy of standards, TCO'03/TCO99 is the highest level of certification. Next is TCO95, which is "better" than TCO92, which, in turn, is better than MPRII. Below, we compare the standards in each category.

-TCO 92 Phase out: June 30, 2000
-TCO 95 Will be end December 31, 2003

Emissions:
MPRII: Set low emission rules for visual displays.
TCO92: Imposed more stringent standards than MPRII.
TCO95: Further toughened TCO92 rules.
TCO99: Delineated even more severe standards and test procedures than TCO95.
TCO'03: Same as TCO99 standard + Testing uncertainty.

Safety:
MPRII: No requirement.
TCO92/95/99/03: All set requirements.

Energy Saving:
MPRII: No requirement.
TCO92: Standby mode < 30W, Off mode < 8W
TCO95: Standby mode < 30W, Off mode < 8W
TCO99: Standby mode < 15W, Off mode < 5W
TCO'03:Standby mode < 15W, Off mode < 5W

Visual Ergonomics:
MPRII: No requirement.
TCO92: No requirement.
TCO95: Set ergonomic rules including minimum contrast level, flicker and jitter.
TCO99: Tightened TCO95 rules.
TCO'03: Tighten TCO99 rule for CRT and new requirement of screen color for TFT LCD Monitors.

Ecology:
MPRII: No requirement.
TCO92: No requirement.
TCO95: Set general ecological standards including recycling preparation, environmental policy and environmental certification.
TCO99: Further tightened TCO95 norms.
TCO'03:Require the recycling information to users.

6. How do I enable the energy saving function?

Go to 'My Computer' and select 'Control Panel' followed by "Monitor Control". Select "All default selection" and choose your Philips monitor model from the default driver list. Plug and Play will automatically enable the EPA tick box for you. In DOS or Windows 3.1, you must first make sure your PC supports power saving.

7. What is refresh rate?

"Refresh rate" describes the number of times an entire screen is vertically scanned each second. In other words: If a monitor's refresh rate is 85 Hz, its screen is refreshed - or vertically scanned - 85 times per second. A higher refresh rate means better image stability and less flicker. A high refresh rate helps users who work long hours in front of a monitor avoid eye fatigue and stress. To change the refresh rate, go into "Start/Settings / Control Pannel / Display / Properties / Setting/Advance/Adaptor" Windows settings of the computer, the monitor will automatically adjust itself to the video card.

8. Why does the picture on the screen appear to flicker?

A low refresh rate or electrical interference typically causes flickering in the picture. Possible solutions include the following:

- Verify that the proper drivers are installed for your video card
- Make sure that all electrical devices (such as mobile phones) are at least 1m from the monitor
- Place the monitor in another physical location away from electrical interference
- Adjust the refresh rate to 75hz or higher.

9. How do I adjust my monitor's resolution?

Available resolutions are determined by the capabilities of your video card and graphic driver. Under Windows '95, you may select the desired available resolution through the 'Display properties/Settings' menu.

10. How can I adjust the size, position and rotation of my screen?

Depending on the model you own, you can use your CustoMax Software, On Screen Display (OSD) or control knobs located on the monitor.

11. What if I get lost when making monitor adjustments?

Simply press OK button then select "Reset to factory settings" to restore all settings.

Press and hold the OSD menu key for about 15 seconds until picture displays "OSD MAIN MENU UNLOCKED"

12. My screen shows NO SYNC INPUT , how can I get rid of this?

Check the following for possible solutions:

- Bent pins on the video cable
- Make sure the computer is turned on
- Ensure the VGA Cable is properly connected
- Ensure the BNC/D-Sub connector on the rear of the monitor is in the correct position, newer models have this option in the On Screen Display under Input Signal Selection.
- Video card may be not a VESA standard (try the monitor with another computer)

13. Why does my monitor display "Out of Range"?

The video card installed in your computer may be too high for the monitor 's specifications. Please contact your computer manufacturer for details on how to lower resolution for your operating system.

14. What is Moire? Why does my monitor have this wavy phenomenon?

Moire is a natural effect or phenomenon of CRT that has the appearance of a wavy pattern, which is repetitive and superimposed on the screen as ripple images. These are a few suggestions to help reduce or minimize the effects:

- Some monitors have a Moire cancellation feature, activate it to the on position or adjust the Moire cancellation function via the OSD on the monitor.

- Change resolution to the recommended standard for the specific monitor size.
- Change Window viewing pattern/scheme to a pattern where the Moire is less visible.
- Change horizontal and vertical size to optimize the reduction of the Moire effect.

15. My monitor appears to be missing one or more colors. How do I correct this?

- If the OSD menu is also missing a color, please contact service for details
- Set color temperature to 9300 color coordination
- Check the video cable for any bent pins
- Video card could be defective (try the monitor with another computer).

16. When I degauss my monitor, it makes a loud noise. Is this normal?

Yes, when degaussing your monitor via the OSD, it is normal for the monitor to make a relatively loud noise. Please be aware that many models will not degauss more than once within any given time period (up to 10 minutes). This is due to the unit having a temperature sensitive resistor. While the unit is degaussing, the resistor increases in value with heat and once it reaches a certain temperature, the resistance will rise and prevent voltage from reaching the degaussing coil. This is what stops the degausser, and this device's resistance will decrease as it cools back off, enabling the degauss function to operate again. This is an intentional design and is an industry standard, not just for Philips monitors. Please be aware that not all models in the Philips range has this manual degauss function. Some models are built with an auto degauss feature which automatically degausses the monitor when it is switched on.

17. How do I adjust the picture on the screen?

Please perform the following to correct the picture image:

- Reset your monitor via the OSD menu
- Adjust the Horz (width) and/or Vert size (height) in the OSD
- Change monitor timing to work at the recommended resolution

18. The edge of the picture on the screen appears to be distorted. How can I correct this?

Please perform the following to correct the picture image:

- A magnetic or electrical interference typically causes poor geometry in the picture. Place the monitor in a different physical location
- Reset the monitor to the factory preset via the OSD menu
- Access the Geometry Menu in the OSD of the Monitor and perform the necessary adjustments
- Change the monitor timing to the recommended resolution

19. The picture appears too dim. How can I correct this?

Adjust Brightness and/or Contrast via the monitor 's OSD. Some models have a Video Input Select

under Advanced Controls in the monitor 's OSD. Most computers require it to be set at 0.7V.

Please review the following for possible solutions:

- If the OSD menu is also dim, please contact service for repair
- Reset the monitor via the OSD menu
- Change the color temperature settings to 9300 color coordination via the OSD menu
- Set the Contrast to maximum level (100) and Brightness to middle level (50)

20. How can I increase the color display of my monitor?

The amount of video memory your video card holds determines the amount of colors that can be displayed on your computer screen. To get the most out of your video card, you will need to either install the latest drivers onto your computer or upgrade the video cards memory. Please check with your computer or video card manufacturer for further details.

21. Why is there no picture on my monitor?

- Check the wall socket for power. Verify that there is power by connecting another product.
- Ensure the power cable is correctly attached to both the wall socket and the monitor.
- Check that the power button is switched on.
- Unplug the monitor for approx. 1 minute and plug it in again. Switch the monitor back on.

22. Why is there no picture on my monitor even though the power LED is yellow/amber or flashing green?

- Reboot your computer while holding the Ctrl key on your computer. If you see any picture during the boot procedure, please verify the settings of your video card (for Windows go to Control Panel and select Display).
- Check that the video cable is not damaged, bent or that any of the pins in the connector are damaged (please be aware that some VGA connectors have one missing pin). If damaged, replace with a new cable.
- Check that the cable is attached correctly to the computer.
- Press any key on the keyboard to wake-up the computer from power saving mode.

23. Why is there no picture on my monitor even though the power LED is green?

- Verify the Contrast and Brightness setting of the monitor. First press and hold the 5 (-) button to increase Contrast and then press and hold the 4 (+) button to increase Brightness. These buttons are located on the front of your monitor.
- Press both the 5 (-) button and the OK button at the same time to switch input A|B.
- Try and repeat step 48 above.

24. Why does the picture disappear after I press the on/off button quickly?

This is a unique Philips feature designed to preserve the life of your monitor. Please allow 5 seconds between powering off and on your monitor, your picture will then be restored.

Glossary

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

A

Autoscan

A microprocessor-based feature of Philips Brilliance monitors is able to detect automatically horizontal and vertical frequencies of input signals with those of the installed video card. An autoscan monitor can thus operate with a wide range of video cards. MultiSync, a registered trademark of NEC, provides a similar function.

RETURN TO TOP OF THE PAGE

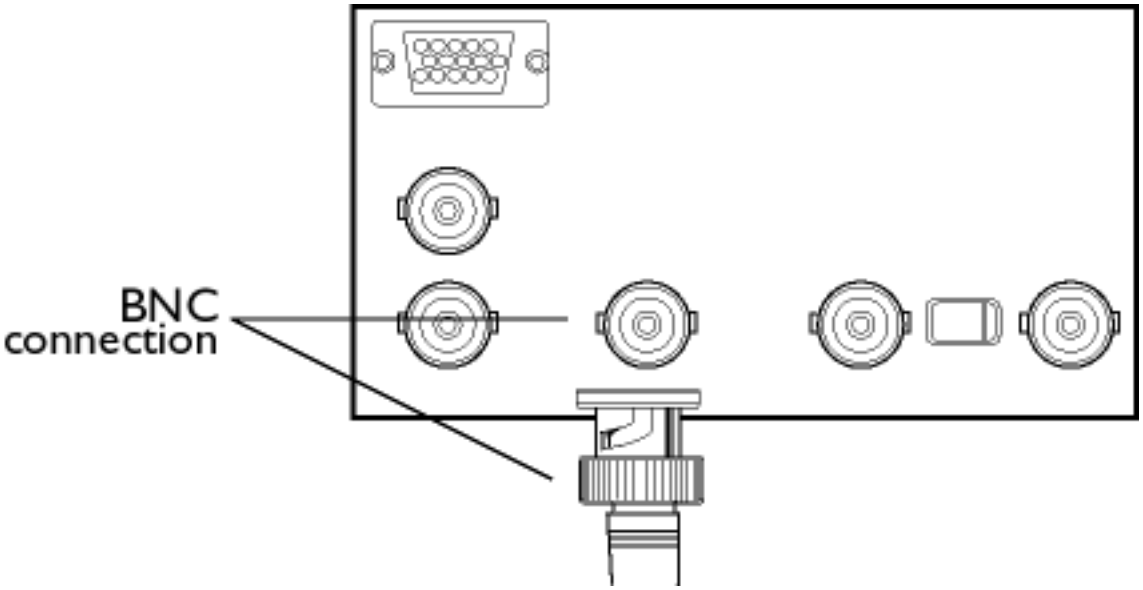
B

Balanced pincushion

See Geometric distortion

BNC connection

A special construction of connector used in some monitors with higher horizontal scanning frequency. The BNC connection can provide the optimum shielding and matching characteristic impedance of video signal path to ensure the best video performance.



RETURN TO TOP OF THE PAGE

C

CE Mark

CE mark is displayed on products per EMC and LV (low Voltage Device) directives in compliance with European Community safety, EMI and EMS requirements and is compulsory on products for sale in the European Community.

Color temperature

A way of describing the color of a radiating source in terms of the temperature (in degrees Kelvin) of a black body radiating with the same dominant frequency as the source.

Most Philips monitors offer the possibility of setting the color temperature to any desired value.

Contrast

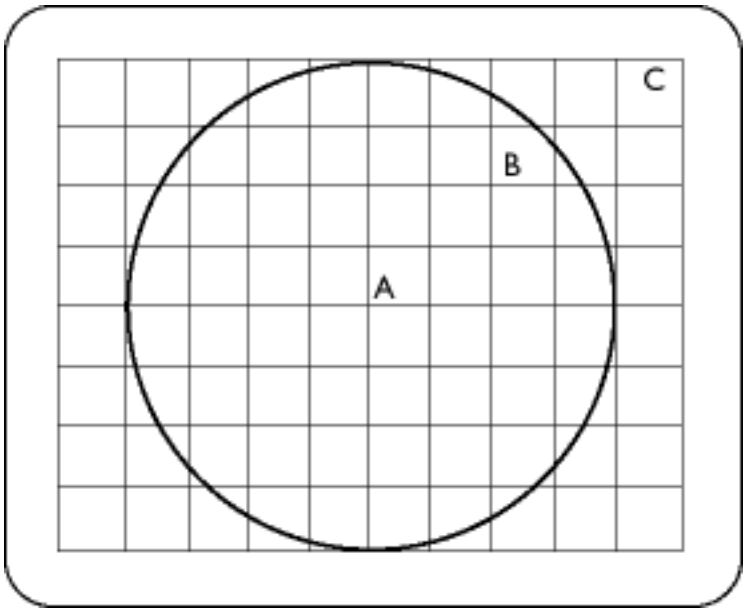
The ratio between the brightness of the brightest and darkest parts of a picture. The darkest part of a picture is set by the brightness of the unexcited phosphor, which is governed by the degree with which ambient light

is reflected. Contrast is therefore reduced in conditions of high ambient light levels. Black Matrix tubes reflect less ambient light so exhibit higher contrast than other tubes.

Convergence error

Bean misalignment causing one or more of the three beams passing through the wrong aperture in the shadow mask and striking a phosphor dot in the wrong triad.

Convergence error is expressed in mm often at three well-defined points on the screen, designated A, B and C (see figure). Also known as misconvergence.



Points where convergence error is specified.

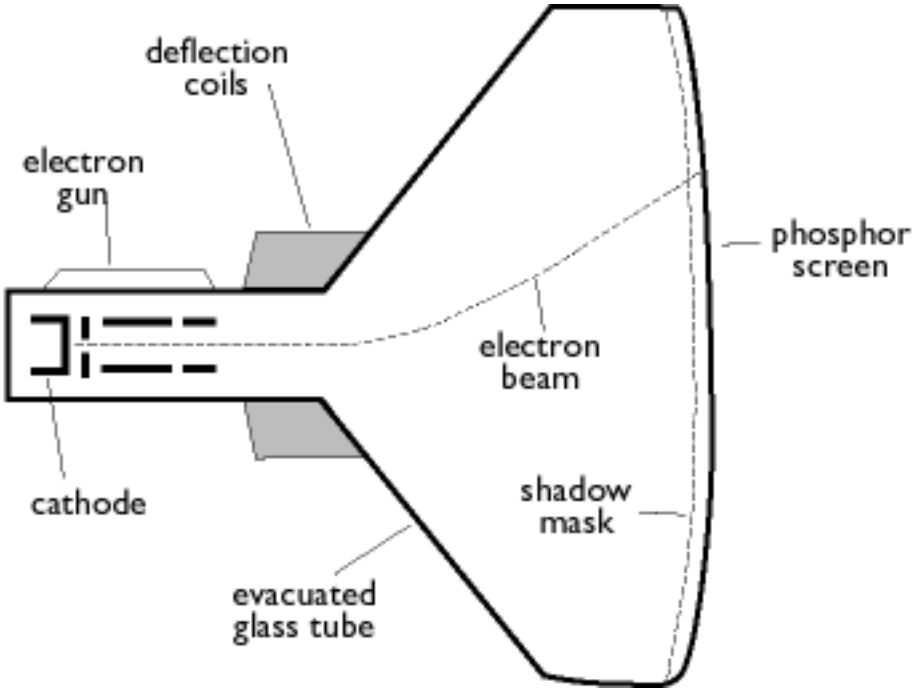
Convergence-error correction

A method of correcting for convergence error to insure that all three beams land simultaneously in the same triad. This is usually accomplished by means of special convergence-error correction coils in the deflection yoke.

CRT

Cathode-ray tube - the general term for all tubes in which one or more electron beams emitted by a cathode

are periodically scanned across a phosphor screen by means of deflection circuitry. A special form of the cathode-ray tube is the TV and monitor picture tube.



RETURN TO TOP OF THE PAGE

D

DDC (Display Data Channel)

DDC is a communication channel for displays and computers. The DDC feature allows the monitor controller to be automatically configured to make optimal use of the display without manual user interaction. DDC is implemented as part of the new Plug & Play approach introduced into the PC market to increase user friendliness.

The three levels developed for Plug & play are: (1) DDC1, monitor send data to the PC; (2) DDC2B, PC can request information from monitor; and (3) DDC2Bi which is a two-way communication - monitor can be addressed and PC or graphics board can give commands to monitor.

DDC 1/2B

See DDC.

DDC 2Bi

See DDC.

Degaussing

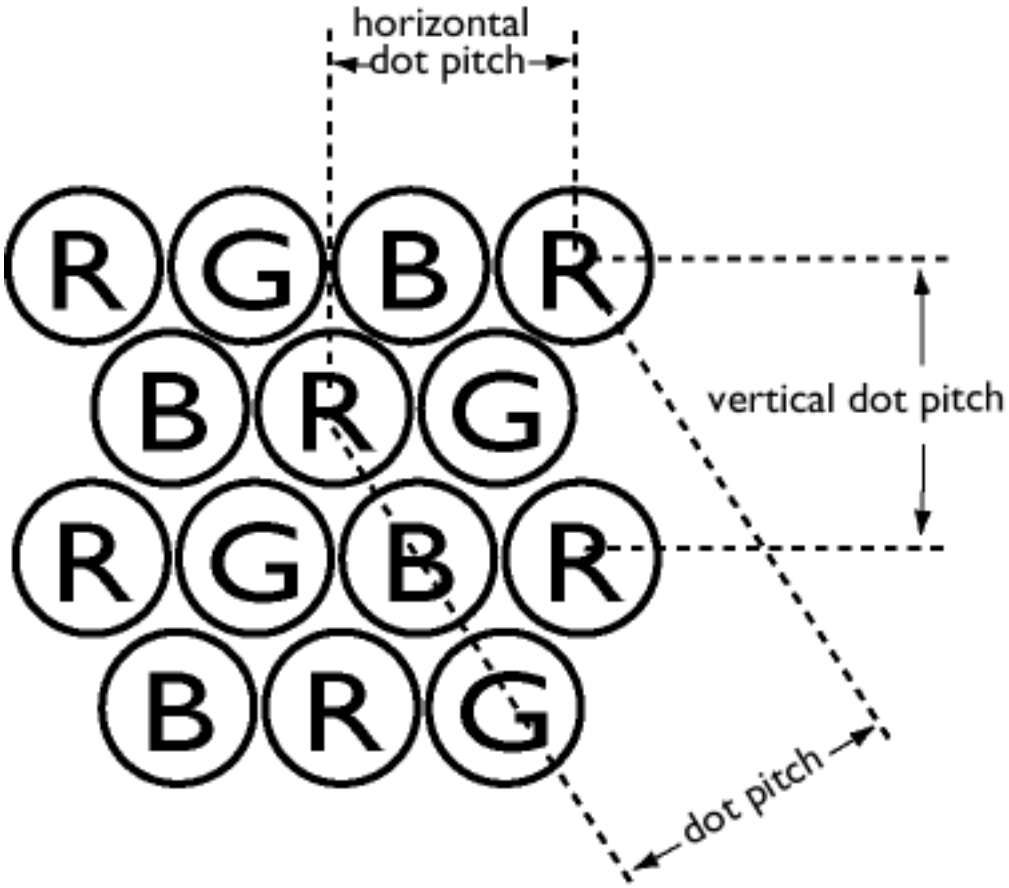
The procedure of demagnetizing the shadow mask and associated metal parts of a picture tube at switch-on to minimize picture distortion. This is usually accomplished by means of a special degaussing coil through which a decaying alternating current is passed to generate an alternating magnetic field that gradually decays to demagnetize the tube. Some monitors offer a manual degaussing facility that can be activated at any time.

Digital control

Microprocessor-based digital control of picture parameters and video modes for complete control of picture settings and modes and instant recall of all settings at the push of a button. This is a very advanced feature that allows the user to switch to any required mode at any instant without having to spend time readjusting the picture. It is currently available in most Philips monitors.

Dot pitch

The shortest distance between two phosphor dots of the same color on the screen. The smaller the dot pitch, the better the resolution of the monitor.



Dot rate

Frequency in MHz of the dot clock. It is a measure of the speed with which data is transferred between the video card and subsequent processing circuitry.

Also known as video dot rate.

RETURN TO TOP OF THE PAGE

E

Electromagnetic radiation standards

International standards set to limit electromagnetic emissions from monitors. There are currently two important standards both derived from regulations originally laid down by Swedish authorities.

MPR-II

The standard originally proposed by the Swedish National Board of Measurement and Testing. It set maximum levels of electromagnetic radiation emitted by monitors, and has now been adopted as a world standard. MPR-II defines maximum permitted electrostatic, magnetic and electric field levels measured at a distance of 50 cm from the center of the monitor (see table).

TCO

In 1991, the Swedish Tjänstemannens Central Organization (TCO, Swedish confederation of Professional Employees) set a standard even more severe than MPR-II, especially for alternating electric fields (AEF). The TCO standard is more severe since not only are the permitted field levels reduced compared with MPR-II, but the measuring distance is also reduced (see table).

Electromagnetic radiation standards

EMI (Electrical Magnetic Interference)

The electrical and/or magnetic radiation coming from the working electrical or electronic equipment.

EMS (Electrical Magnetic Sustainment)

The ability of electrical or electronic equipment to function properly in the environment with electrical and/or magnetic interference.

RETURN TO TOP OF THE PAGE

F

Flicker

Very rapid variations in picture intensity caused by the finite time required for the electron beam to scan a picture onto the screen. Two kinds of flicker occur: line flicker caused by the electron beam scanning-in each line of the picture; and frame flicker (or field flicker if the picture is interlaced) caused by the frame repetition rate of 50 frames/second. Frame flicker is noticeable with GUI and DTP software (which have a light background), and can be very disturbing, especially for those who work regularly with displays - contributing to eye strain, headaches, visual blurring, stress, etc. The problem can, however, be eliminated by increasing the refresh rate (number of frames/second) of the monitor to a value above around 70 Hz. Sensitivity to flicker appears to diminish with increasing age.

RETURN TO TOP OF THE PAGE

H

Hertz

The unit of frequency named after the physicist Heinrich Hertz (1857-1894). 1 hertz (Hz) is equal to 1 cycle/second.

Horizontal dot pitch

See Dot pitch.

Horizontal scanning frequency

Also called line frequency and expressed in kHz, it is the number of video lines written on the screen every second (from left to right). The higher the horizontal scanning frequency, the better the resolution (i.e., the higher the resolution and/or the higher the refresh rate).

RETURN TO TOP OF THE PAGE

I

INF File

INF file (Information File)

Information (INF) files store information in a specific format. The set-up functions retrieve information from the INF file to use when performing installation operations. Examples of the type of information stored in an INF file include INI and registry changes, file names, and locations of the source files on source media.

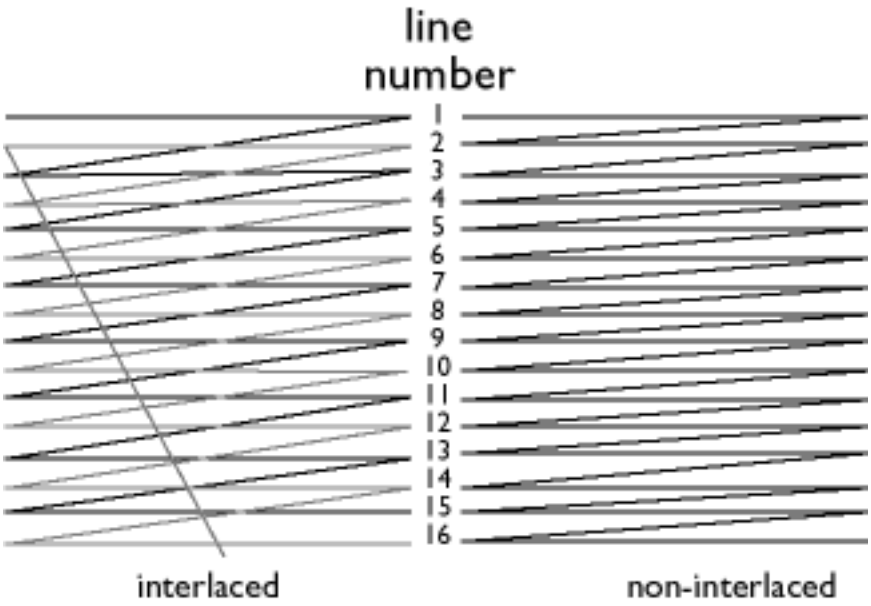
Interlaced/non-interlaced

Interlaced.

The method of writing a picture on the screen by initially writing all even lines and subsequently writing all odd lines of the picture. Result: The complete picture is composed of two interlaced half pictures (or fields). With interlacing, a vertical (or field) frequency of 50 Hz means a picture (or frame) frequency of 25 Hz.

Non-interlaced.

The method of writing a picture on the screen by successive video lines of the picture so that a full frame is written onto the screen in one vertical sweep of the beams. With a non-interlaced display, a vertical frequency of 50 Hz means a picture (or frame) frequency of 50 Hz. At any given resolution, non-interlaced modes are preferable to interlaced modes; however, generation of non-interlaced modes is more expensive.

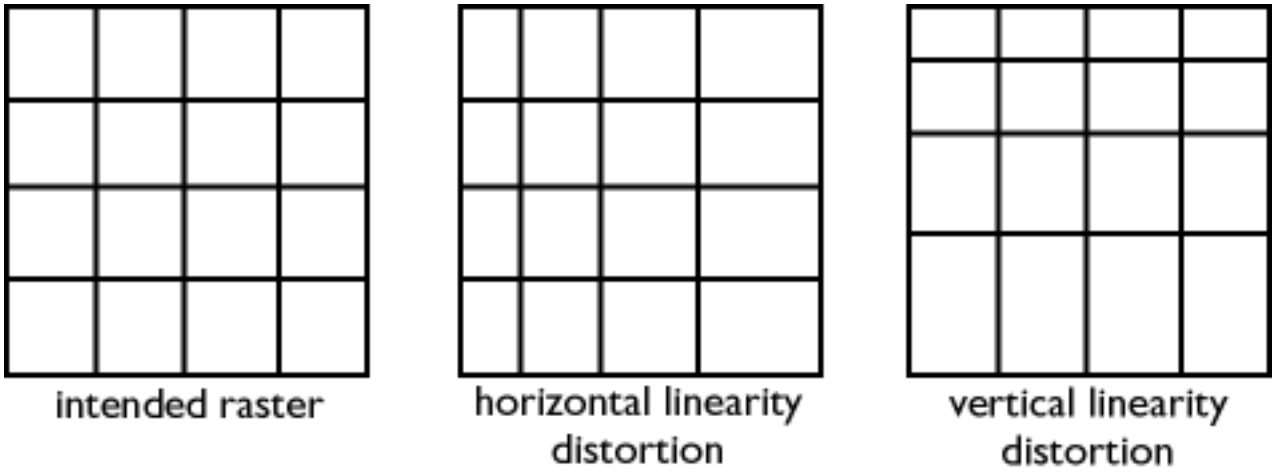


RETURN TO TOP OF THE PAGE

L

Linearity

The degree to measure the actual location of a pixel on the screen corresponds with its intended location. (see figure)



Line frequency

See Horizontal scanning frequency.

Low-emission monitor

A monitor that complies with international standards on radiation.

See Electromagnetic radiation standards.

Low-frequency electric and magnetic fields

Alternating fields generated by the deflection yoke. These are subject to increasing attention, notably by governing authorities, the trade and the press. Although there is no scientific evidence that monitor emissions are harmful, much effort has gone into reducing emissions on the principle of better safe than sorry. Currently, there are two areas of interest: very-low frequency (VLF) electric and magnetic fields extending from 2 kHz to 400 kHz, and extreme low frequency (ELF) fields extending from 5 Hz to 2 kHz.

See also *Electromagnetic radiation standards*.

RETURN TO TOP OF THE PAGE

M

Moiré effect

A fringe pattern arising from the interference between two superimposed line patterns.

In a monitor it comes from the interference between the shadow mask pattern and the video information (video moiré), and between the shadow mask pattern and the horizontal line pattern (scan moiré). It shows itself as wavy patterns on the screen and becomes more noticeable as monitor resolution increases. Since the video signal varies continuously, little can be done about video moiré. Scan moiré depends on the horizontal scanning frequency and can be alleviated by appropriate choice of frequency. Autoscan (MultiSync) monitors, which operate over a range of scanning frequencies, may sometimes exhibit moiré in certain video modes.

MPR

See Electromagnetic radiation standards.

MultiSync monitor

See Autoscan monitor.

RETURN TO TOP OF THE PAGE

N

Non-interlaced

See Interlaced/non-interlaced.

RETURN TO TOP OF THE PAGE

O

OSD (On Screen Display)

The feature that allows an end user to adjust screen performance and parameters of monitors directly through an on-screen instruction window. See CustoMax in CrystalClear section.

Overscan

The practice in which areas without useful video information are scanned outside the visible screen area in order to make maximum use of the screen for display of active video information. This practice is occasionally necessary because some video cards generate a video pattern that is smaller than the visible screen area, resulting in an image that is smaller (and less legible) than it needs to be.

RETURN TO TOP OF THE PAGE

P

Parallelogram Distortion

See Geometric distortion.

Phosphor

Generic name for the class of substances that exhibit luminescence. To produce a picture on screen, phosphors are deposited on the inner surface of the picture-tube screen and excited into luminescence by the electron beam. Typical examples of phosphors are P22 medium short-persistence phosphor and EBU high-color-saturation phosphor.

Pin-cushion Distortion

See Geometric distortion.

Pixel

Abbreviation for picture element, the smallest element of the picture that can be displayed on the screen. The smaller the pixel size, the better the resolution of the monitor. Pixel size is determined by the size of the electron spot on the screen and not necessarily by the phosphor dot pitch (the size of the triad). Thus, a monitor with a large electron spot covering several triads can exhibit poor resolution even though its dot pitch is small.

Pixel frequency

The number of pixels that can be written in a video line per second.

Pixel rate

See pixel frequency

Plug-and-Play

See DDC. See USB section.

RETURN TO TOP OF THE PAGE

R

Raster

The area on screen that electron beam can reach.

Refresh rate

See Vertical scanning frequency.

Resolution

The number of pixels that can be displayed on the screen. The resolution is specified as the number of pixels in a line multiplied by the number of horizontal lines.

See also video graphic adapter.

Rotation function

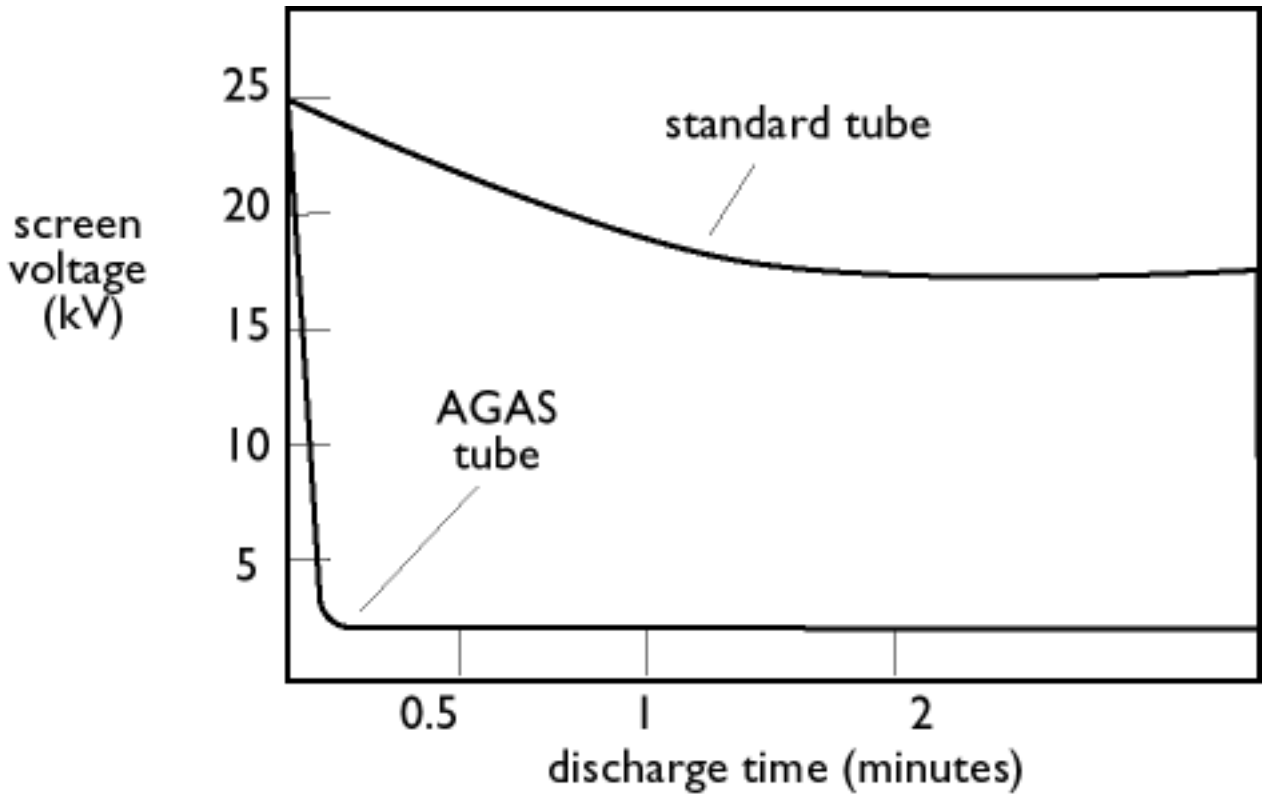
The feature that allows users to adjust the whole screen rotating to be horizontal.

Because of the magnetic field of earth, the screen of monitor will be tilt when the screen faces toward the different direction.

RETURN TO TOP OF THE PAGE

S

Screen coatings



Anti-Static coatings

Due to bombardment by beam electrons, monitor screens become electrically charged when in use. Electrically charged screens surfaces can attract dust particles. An Anti-Static coating is a conductive coating deposited on the screen (or on a glass panel immediately in front of the screen) that conducts away the charge and prevents screen dust build-up.

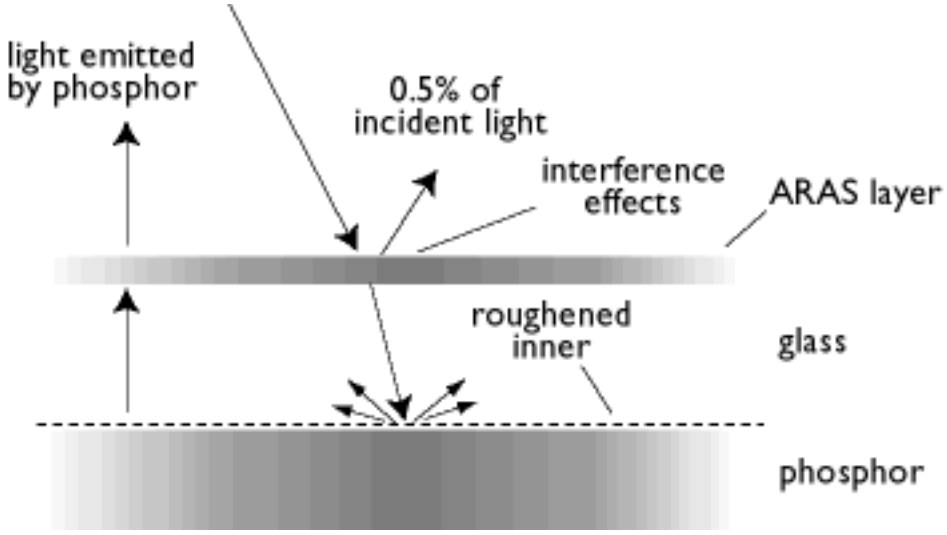
AGAS (Anti-Glare, Anti-Static) coating

AGAS is a silica coating applied to the surface of the screen by a spinning and spraying process. It operates by diffusing reflected light to blur images of light sources on the screen. To provide anti-static properties, the coating is impregnated with small conductive particles.

ARAS (Anti-Reflection, Anti-Static) coating

ARAS is one of the most effective anti-reflection/anti-static screen treatments currently available. It is composed of a multi-layer structure of transparent dielectric material that suppresses specular reflections by broadband interference effects at the screen surface. Anti-static properties are provided by a single conductive layer within the multi-layer structure.

With ARAS, the intensity of reflected light is reduced from around 4.5% of the incident light (the reflectivity of uncoated screens) to less than 0.5%. ARAS also has a major advantage over other screen treatments: It doesn't diffuse or scatter reflected light, so picture contrast and sharpness remain completely unimpaired. It's also easy to clean and tough enough to withstand commercially available cleaning agents.



The ARAS coating reflects only about 0.5% of the incident light.

AGARAS (Anti-Glare Anti-Reflection Anti-Static) coating.

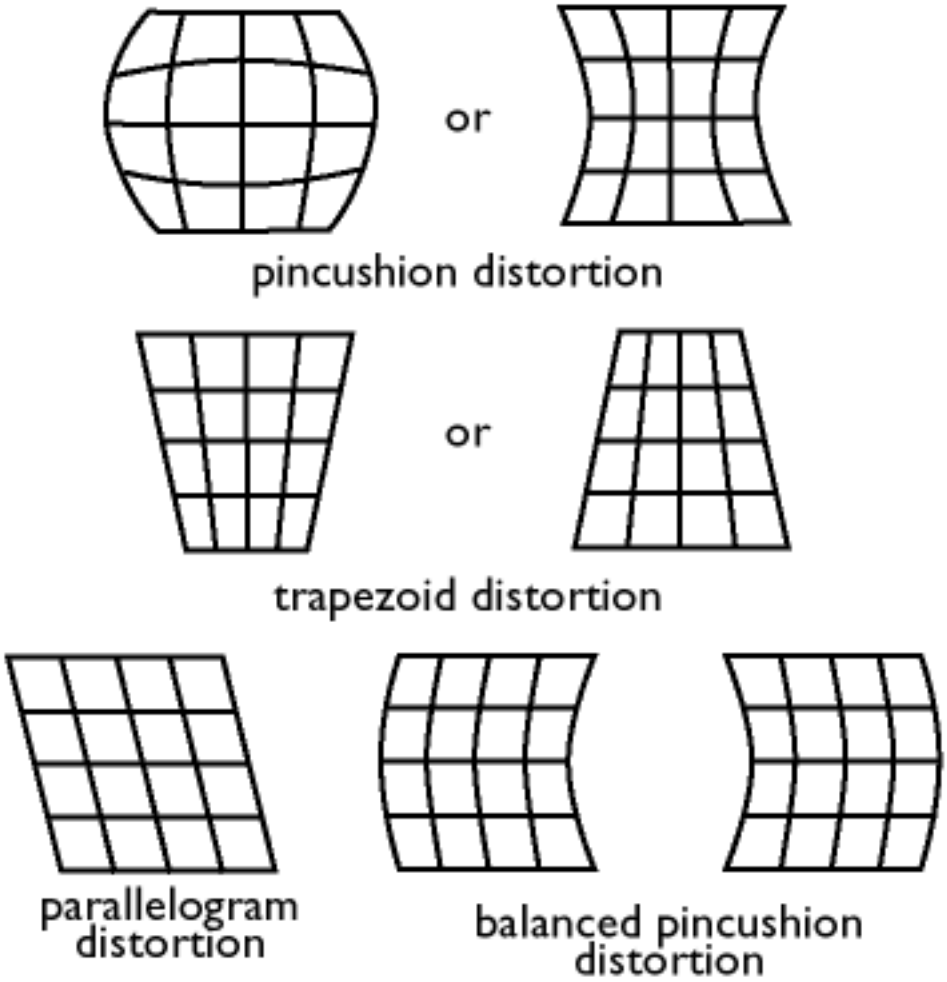
A combined anti-reflection, anti-glare, anti-static coating.

Self-test function

A monitor equipped with hardware or software to automatically detect cable connection status.

Shape

Deviation of a reproduced picture from its intended shape. The following types of distortion are most common:



SOG (Synchronization On Green)

A properly functioning color monitor requires five kinds of signals: horizontal sync pulse, vertical sync pulse, red color signal, green color signal and blue color signal. Signals from a PC are transmitted to a monitor using one of three methods:

1. Separate sync: Horizontal and Vertical sync signals transmitted separately

2. Composite sync: Horizontal and vertical sync pulses mixed into a single signal train.

3. SOG: Horizontal and vertical sync pulses mixed, then combined with the green color signal.

RETURN TO TOP OF THE PAGE

T

TCO

See Electromagnetic radiation standards.

Tilt function

See rotation function.

Trapezoid distortion

See Geometrical distortion.

TTL signal

A TTL (Transistor-transistor-logic) signal is a digital signal level for controlling the screen colors. With TTL driving, the red, green and blue signals can only be switched on or off or provided with an intensity signal. A TTL-driven monitor can thus display a maximum of 64 colors. Video standards such as MDA, CGA and EGA are based on TTL level.

RETURN TO TOP OF THE PAGE

U

USB or Universal Serial Bus

A smart plug for PC peripherals. USB automatically determines resources (like driver software and bus bandwidth) required by peripherals. USB makes necessary resources available without user intervention.

- USB eliminates "case angst" -- the fear of removing the computer case to install add-on peripherals. And USB also eliminates adjustment of complicated IRQ settings when installing new peripherals.
- USB does away with "port gridlock." Without USB, PCs are normally limited to one printer, two Com port devices (usually a mouse and modem), one Enhanced Parallel Port add-on (scanner or video

camera, for example) and a joystick. More and more peripherals for multimedia computers arrive on the market every day. With USB, up to 127 devices can run simultaneously on a computer.
- USB permits "hot plug-in." There's no need to shut down, plug in, reboot and run set-up to install peripherals. And no need to go through the reverse process to unplug a device.

In short, USB transforms today's "Plug-and-Pray" into true Plug-and-Play!

Hub

A Universal Serial Bus device that provides additional connections to the Universal Serial Bus.

Hubs are a key element in the plug-and-play architecture of USB. The Figure shows a typical hub. Hubs serve to simplify USB connectivity from the user's perspective and provide robustness at low cost and complexity.

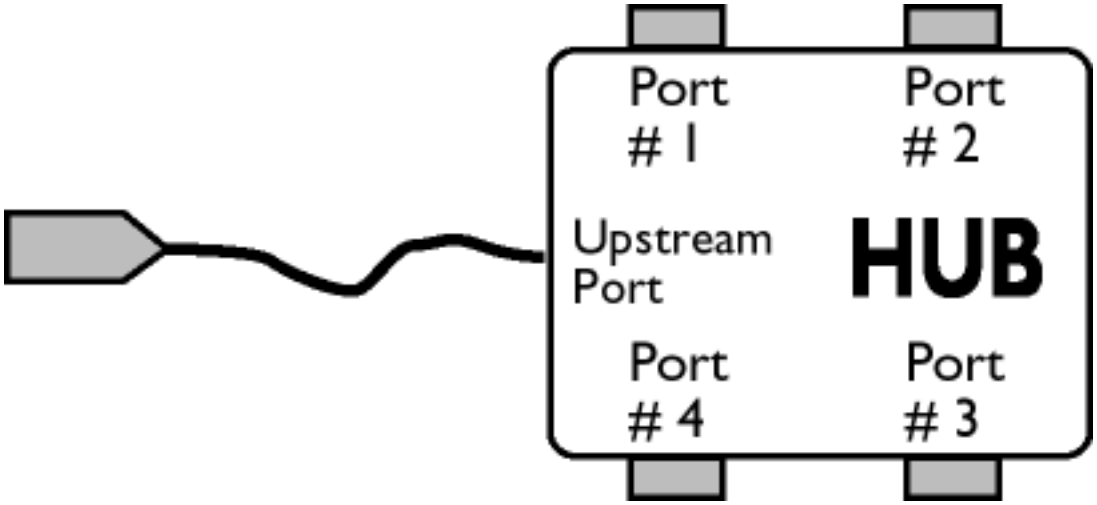
Hubs are wiring concentrators and enable the multiple attachment characteristics of USB. Attachment points are referred to as ports. Each hub converts a single attachment point into multiple attachment points. The architecture supports concatenation of multiple hubs.

The upstream port of a hub connects the hub towards the host. Each of the other downstream ports of a hub allows connection to another hub or function. Hubs can detect, attach and detach at each downstream port and enable the distribution of power to downstream devices. Each downstream port can be individually enabled and configured at either full or low speed. The hub isolates low speed ports from full speed signaling.

A hub consists of two portions: the Hub Controller and Hub Repeater. The repeater is a protocol-controlled switch between the upstream port and downstream ports. It also has hardware support for reset and suspend/resume signaling. The controller provides the interface registers to allow communication to/from the host. Hub specific status and control commands permit the host to configure a hub and to monitor and control its ports.

Device

A logical or physical entity that performs a function. The actual entity described depends on the context of the reference. At the lowest level, device may refer to a single hardware component, as in a memory device. At a higher level, it may refer to a collection of hardware components that perform a particular function, such as a Universal Serial Bus interface device. At an even higher level, device may refer to the function performed by an entity attached to the Universal Serial Bus; for example, a data/FAX modem device. Devices may be physical, electrical, addressable, and logical.



Downstream

The direction of data flow from the host or away from the host. A downstream port is the port on a hub electrically farthest from the host that generates downstream data traffic from the hub. Downstream ports receive upstream data traffic.

Upstream

The direction of data flow towards the host. An upstream port is the port on a device electrically closest to the host that generates upstream data traffic from the hub. Upstream ports receive downstream data traffic.

UPS (Universal Power Supply)

The monitor with UPS feature can work in different countries with various mains voltage.

RETURN TO TOP OF THE PAGE

V

Vertical dot pitch

See Dot pitch.

Vertical scanning frequency

Expressed in Hz, this is the number of fields written to the screen every second in interlaced mode. In non-interlaced mode vertical scanning frequency is the number of frames (complete pictures) written to the screen every second (also known as refresh rate).

Vertical sync pulses

A train of square shaped waveforms that define the start of a new frame.

VESA

Video Electronic Standards Association, a consortium of manufacturers formed to establish and maintain industry-wide standards for video cards and monitors. VESA was instrumental in the introduction of the Super VGA and Extended VGA video graphics standards (see Video graphics adapters) with a refresh rate of 70 Hz, minimizing flicker and helping to reduce operator eyes fatigue and stress.

Video dot rate

See Dot rate.

Video graphics adapters

A card equipped with a character or graphic generator and video memory, which maps to the screen. A microprocessor scans video memory and translates bit information from the computer into displayable video signals for the monitor. These cards comply with various standards that determine the nature and quality of the display.

VGA (Video Graphics Array), introduced in 1987, was the first analog card. It offered still higher resolution than EGA: 640 X 480 pixels for graphics and 720 x 400 pixels for text, and a color palette of 256 colors. VGA could also emulate EGA and CGA.

Super VGA, devised by VESA in 1989, offers a resolution of 800 x 600 pixels.

Extended VGA, introduced by VESA in 1991, offers a top resolution of 1024 x 768 pixels (non-interlaced) and a refresh rate slightly higher than IBM's XGA 8514A.

High-end, graphics adapters, introduced over the last three years for professional workstations, offer top resolutions from 1280 x 1024 to 1600 x 1280, horizontal line frequencies up to 90 kHz and bandwidths up to 200 MHz.

VIS (Viewable Image Size)

The real screen dimensions that users can see measured diagonally. The VIS of a monitor is always less than the so called screen size of a monitor. For example, the VIS of a 17-inch monitor is only about 16 inches. It depends on the useful screen size of CRT and the opening of a monitor's front cabinet.

RETURN TO TOP OF THE PAGE

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